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OM protein - protein search, using sw model

Run on: May 10, 2005, 08:07:07 ; Search time 43 Seconds  
(without alignments)  
890.581 Million cell updates/sec

Title: US-10-051-902a-20  
Perfect score: 2559  
Sequence: 1 MASDELAKAVEPRKGNVY.....ABEADAAAEKVKVLPSSK 513

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 513545

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000  
Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Issued Patents AA:\*  
1: /cgn2\_6/prodata/1/1aa/5A COMB.pep:\*  
2: /cgn2\_6/prodata/1/1aa/5B COMB.pep:\*  
3: /cgn2\_6/prodata/1/1aa/6A COMB.pep:\*  
4: /cgn2\_6/prodata/1/1aa/6B COMB.pep:\*  
5: /cgn2\_6/prodata/1/1aa/PCTUS COMB.pep:\*  
6: /cgn2\_6/prodata/1/1aa/backfiles1.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2559	100.0	513	3	US-09-291-922-20
2	1906.5	74.5	529	3	US-09-291-922-28
3	1872.5	73.2	510	3	US-09-291-922-22
4	1764.5	69.0	539	3	US-09-291-922-26
5	1542	60.3	523	3	US-09-291-922-24
6	1483.5	58.0	549	3	US-09-291-922-30
7	664.5	26.0	488	4	US-10-162-012-46
8	581.5	22.7	514	4	US-09-489-039A-11902
9	576	22.5	167	3	US-09-291-922-18
10	565	22.1	584	2	US-08-928-692-13
11	565	22.1	584	3	US-09-339-972-13
12	551.5	21.6	517	4	US-09-679-686B-18
13	542	21.2	501	4	US-09-489-039A-11731
14	533	20.8	476	4	US-09-489-039A-11933
15	528	20.6	502	4	US-09-679-686B-2
16	511	20.0	518	4	US-09-679-686B-23
17	505.5	19.8	494	2	US-09-031-392-5
18	505.5	19.8	494	3	US-09-299-549-5
19	505.5	19.8	494	3	US-09-610-417-5
20	502.5	19.6	729	3	US-09-291-922-29
21	495	19.3	519	4	US-09-679-686B-24
22	489.5	19.1	510	4	US-09-679-686B-19
23	484	18.9	493	2	US-09-031-392-10
24	484	18.9	493	3	US-09-299-549-10
25	484	18.9	493	3	US-09-610-417-10
26	482	18.8	514	4	US-09-679-686B-22
27	480.5	18.8	524	2	US-08-928-692-12

28	480.5	18.8	524	3	US-09-339-972-12	Sequence 12, Appl
29	477.5	18.7	737	3	US-09-291-922-8	Sequence 8, Appl
30	476.5	18.6	518	4	US-09-679-686B-16	Sequence 16, Appl
31	468.5	18.3	511	4	US-09-679-686B-12	Sequence 12, Appl
32	466	18.2	521	4	US-09-489-039A-9549	Sequence 9549, Ap
33	463	18.1	496	4	US-10-146-704-3	Sequence 3, Appl
34	459.5	18.0	558	4	US-09-949-016-10630	Sequence 10630, A
35	459.5	18.0	562	4	US-10-162-012-44	Sequence 44, Appl
36	453	17.7	492	2	US-08-355-844-3	Sequence 3, Appl
37	453	17.7	492	5	PCT-US95-16126-3	Sequence 2, Appl
38	453	17.7	747	3	US-09-291-922-2	Sequence 2, Appl
39	450.5	17.6	329	4	US-09-710-279-1942	Sequence 1942, Ap
40	443	17.3	504	4	US-09-679-686B-21	Sequence 21, Appl
41	439.5	17.2	509	2	US-09-031-392-6	Sequence 6, Appl
42	439.5	17.2	509	3	US-09-299-549-6	Sequence 6, Appl
43	439.5	17.2	509	3	US-09-610-417-6	Sequence 6, Appl
44	423	16.5	506	4	US-09-248-796A-20075	Sequence 20075, A
45	421.5	16.5	534	2	US-09-031-392-4	Sequence 4, Appl

## ALIGNMENTS

## RESULT 1

US-09-291-922-20  
; Sequence 20, Application US/09291922  
; Patent No. 6383776  
; GENERAL INFORMATION:  
; APPLICANT: Allen, Steve  
; APPLICANT: Hitz, Bill  
; APPLICANT: Kinney, Tony  
; APPLICANT: Tinney, Scott  
; TITLE OF INVENTION: Plant Sugar Transport Proteins  
; FILE REFERENCE: BB-1163  
; CURRENT APPLICATION NUMBER: US/09/291,922  
; CURRENT FILING DATE: 1999-04-14  
; EARLIER APPLICATION NUMBER: 60/083,044  
; EARLIER FILING DATE: April 24, 1998  
; NUMBER OF SEQ ID NOS: 30  
; SOFTWARE: Microsoft Office 97  
; SEQ ID NO 20  
; LENGTH: 513  
; TYPE: PRT  
; ORGANISM: Zea mays  
US-09-291-922-20

Query Match		100.0%;	Score 2559;	DB 3;	Length 513;
Best Local Similarity		100.0%;	Pred. No. 7.6e-255;		
Matches 513;		Conservative	0;	Mismatches	0;
				Indels	0;
				Gaps	0;
Qy	1	MASDELAKAVEPRKGNVYASICAILASMASVILGYDGVMSGAAMYTKDNLITDVQL	60		
Db	1	MASDELAKAVEPRKGNVYASICAILASMASVILGYDGVMSGAAMYTKDNLITDVQL	60		
Qy	61	ELLIGILSYLSFGSFAGARTSDRIGRLITVVFAAVIFFVGSLLMGFAVNYGMLMAGRFV	120		
Db	61	ELLIGILSYLSFGSFAGARTSDRIGRLITVVFAAVIFFVGSLLMGFAVNYGMLMAGRFV	120		
Qy	121	AGVGVGGMIAPVYTAISPAASRGFLTTTPEVFINIGILGYLSNFAFARLPHLHWR	180		
Db	121	AGVGVGGMIAPVYTAISPAASRGFLTTTPEVFINIGILGYLSNFAFARLPHLHWR	180		
Qy	181	VMLATGAVPSGLALLVFCMPESPWLKGLADARAVLEKTSATPEAAERLADIKAA	240		
Db	181	VMLATGAVPSGLALLVFCMPESPWLKGLADARAVLEKTSATPEAAERLADIKAA	240		
Qy	241	AGIPKGLGDVVTVPGKEGGGELQVWKLLILSPTPAVRILLSSAVGLHFFQOAGSDSV	300		
Db	241	AGIPKGLGDVVTVPGKEGGGELQVWKLLILSPTPAVRILLSSAVGLHFFQOAGSDSV	300		
Qy	301	VOYSARLPKSGAGITDDNKLGLVTCAGVTKTFFILVATFLDRAGRRLILLISTGMIYS	360		
Db	301	VOYSARLPKSGAGITDDNKLGLVTCAGVTKTFFILVATFLDRAGRRLILLISTGMIYS	360		

QY 361 LICLSGLTVAGHHPDPTKVAVNAVALCIASLTLSYIAFFSIGLPTGVTGVTSEIFPLQVRAL 420  
Db 361 LICLSGLTVAGHHPDPTKVAVNAVALCIASLTLSYIAFFSIGLPTGVTGVTSEIFPLQVRAL 420  
QY 421 GFAGVASNRTVSATVSMFSLSKAITIGGSFFLYSGIAAVAVWVFFFTCLPETRGRILE 480  
Db 421 GFAGVASNRTVSATVSMFSLSKAITIGGSFFLYSGIAAVAVWVFFFTCLPETRGRILE 480  
QY 481 EMGKLFPMPTDTCMAEAEADAARKEKVELPSSK 513  
Db 481 EMGKLFPMPTDTCMAEAEADAARKEKVELPSSK 513

## RESULT 2

US-09-291-922-28

; Sequence 28, Application US/09291922

; Patent No. 6383776

; GENERAL INFORMATION:

; APPLICANT: Allen, Steve

; APPLICANT: Hitz, Bill

; APPLICANT: Kinney, Tony

; APPLICANT: Tingey, Scott

; TITLE OF INVENTION: Plant Sugar Transport Proteins

; FILE REFERENCE: BB-1163

; CURRENT APPLICATION NUMBER: US/09/291,922

; CURRENT FILING DATE: 1999-04-14

; EARLIER APPLICATION NUMBER: 60/083,044

; EARLIER FILING DATE: April 24, 1998

; NUMBER OF SEQ ID NOS: 30

; SOFTWARE: Microsoft Office 97

; SEQ ID NO 28

; LENGTH: 529

; TYPE: PRT

; ORGANISM: Triticum aestivum

US-09-291-922-28

Query Match 74.5%; Score 1906.5; DB 3; Length 529;

Best Local Similarity 73.6%; Pred. No. 1.5e-187;

Matches 373; Conservative 58; Mismatches 71; Indels 5; Gaps 3;

QY 1 MASDELAKAVEPRKKNVYASICALASMASVILGYDIGVMSGAAMYIKKDLNITDV 58  
Db 19 MASALPEAVAPKPKGNVRFAPACAILASMTSILLYDIGVMSGASLYIKKDFNISDGKV 78  
QY 59 QLEIITGILSLYSLFGSFGAGARTSDRIGRLTVVFAAVIFFVGSLLMGFAVNYGMLMAGR 118  
Db 79 QLEIWMGILSVYALIGSFLGARTSDWVGRRTVVFAAAIFNNGSLLMGFAVNYAMLMVGR 138  
QY 119 FVAGVGVGGMIAPVYTABISPAASRGFLTPPEVFINIGILLGYSNFAFARLPLHLG 178  
Db 139 FVTGIGVYAIMVAPVYTPEVSPASARGFLTSFTEVFINVIGILLGVSNYAFARLPLHLS 198  
QY 179 WRVMLAIGAVPSGLLALLVFCMPESPRVLKGRADARAVLEKTSATPEEAERLADIK 238  
Db 199 WRVMLGIGAVPSALLALMFCMPESPRVLWKGRADARAVLAKTSATPEEAERLADIK 258  
QY 239 AAAGIPKGLDGDVVTVPGKEGGELQVWKKLISPTPAVRRIILSAVGLHFFQOAGSD 298  
Db 259 AAAGIPRELDGDVVTVMP-KTGSGQEQVWKELIFSPTPAMRRIILAAALGHHFFQOAGSD 317  
QY 299 SVVQYARLPKSAGITDDNKLIGVTCAGVTKTFFILVATFLDDRAGRRPLLLISTGMI 358  
Db 318 SVVLYSPRVFQSAGITGDNHLLGATCAMGVMTKTLFVATFQDVRGRPLLLTSTAGML 377  
QY 359 VSLICLSGLTVAGHHPDPTKVAVNAVALCIASLTLSYIAFFSIGLPTGVTGVTSEIFPLQVR 418  
Db 378 ACLIGLGLTVAGHHPDPTKVAVNAVALCIASLTLSYIAFFSIGLPTGVTGVTSEIFPLQVR 437  
QY 419 ALGFAVGNASNRVTSATVSMFSLSKAITIGGSFFLYSGIAAVAVWVFFFTCLPETRGRILE 478  
Db 438 ALGFAVGNASNRVTSATVSMFSLSKAITIGGSFFLYSGIAAVAVWVFFFTCLPETRGRILE 497

QY 479 LEEMKLFPMPTDTCMAEAEADAARKEK 505  
Db 498 LEEIGKLFPMPTDTCMAEAEADAARKEK 522

## RESULT 3

US-09-291-922-22

; Sequence 22, Application US/09291922

; Patent No. 6383776

; GENERAL INFORMATION:

; APPLICANT: Allen, Steve

; APPLICANT: Hitz, Bill

; APPLICANT: Kinney, Tony

; APPLICANT: Tingey, Scott

; TITLE OF INVENTION: Plant Sugar Transport Proteins

; FILE REFERENCE: BB-1163

; CURRENT APPLICATION NUMBER: US/09/291,922

; CURRENT FILING DATE: 1999-04-14

; EARLIER APPLICATION NUMBER: 60/083,044

; EARLIER FILING DATE: April 24, 1998

; NUMBER OF SEQ ID NOS: 30

; SOFTWARE: Microsoft Office 97

; SEQ ID NO 22

; LENGTH: 510

; TYPE: PRT

; ORGANISM: Oryza sativa

; FEATURE:

; NAME/KEY: UNSURE

; LOCATION: (102)

US-09-291-922-22

Query Match

Best Local Similarity 73.2%; Score 1872.5; DB 3; Length 510;

Matches 372; Conservative 60; Mismatches 77; Indels 3; Gaps 2;

QY 1 MASDELAKAVEPRKKNVYASICALASMASVILGYDIGVMSGAAMYIKKDLNITDVOL 60  
Db 1 MASALPEAVAPKPKGNVRFAPACAILASMTSILLYDIGVMSGASLYIKKDFNISDGKV 60  
QY 61 EILIGILSLYSLFGSFGAGARTSDRIGRLTVVFAAVIFFVGSLLMGFAVNYGMLMAGR 120  
Db 61 EILMIGILSLYSLFGSFGAGARTSDRIGRLTVVFAAVIFFVGSLLMGFAVNYGMLMAGR 120  
QY 121 AGVGVGVGGMIAPVYTABISPAASRGFLTPPEVFINIGILLGYSNFAFARLPLHLGWR 180  
Db 121 AGVGVGVGGMIAPVYTABISPAASRGFLTPPEVFINIGILLGYSNFAFARLPLHLGWR 180  
QY 181 VMLAIGAVPSGLLALLVFCMPESPRVLKGRADARAVLEKTSATPEEAERLADIKAA 240  
Db 181 IMLGIGAVPSGLLALLVFCMPESPRVLKGRADARAVLEKTSATPEEAERLADIKAA 240  
QY 241 AGIPKGLDGDVVTVPGKEGGELQVWKKLISPTPAVRRIILSAVGLHFFQOAGSDSV 300  
Db 241 AGIPKGLDGDVVTVPGKEGGELQVWKKLISPTPAVRRIILSAVGLHFFQOAGSDSV 300  
QY 301 VOYSARLPKSAGITDDNKLIGVTCAGVTKTFFILVATFLDDRAGRRPLLLISTGMIYS 360  
Db 300 VOYSARLPKSAGITDDNKLIGVTCAGVTKTFFILVATFLDDRAGRRPLLLISTGMIYS 360  
QY 361 LICLSGLTVAGHHPDPTKVAVNAVALCIASLTLSYIAFFSIGLPTGVTGVTSEIFPLQVRAL 420  
Db 360 LICLSGLTVAGHHPDPTKVAVNAVALCIASLTLSYIAFFSIGLPTGVTGVTSEIFPLQVRAL 420  
QY 421 GFAGVASNRTVSATVSMFSLSKAITIGGSFFLYSGIAAVAVWVFFFTCLPETRGRILE 480  
Db 420 GCSLGVASNRTVSATVSMFSLSKAITIGGSFFLYSGIAAVAVWVFFFTCLPETRGRILE 479  
QY 481 EMGKLFPMPTDTCMAEAEADAARKEKVELPSS 512  
Db 480 EMKSLFG--DTAAASESDSEPAKEKKVMAAT 509

## RESULT 4

```
US-09-291-922-26
; Sequence 26, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
; FILE REFERENCE: BB-1163
; CURRENT APPLICATION NUMBER: US/09/291,922
; CURRENT FILING DATE: 1999-04-14
; EARLIER APPLICATION NUMBER: 60/083,044
; EARLIER FILING DATE: April 24, 1998
; NUMBER OF SEQ ID NOS: 30
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 26
; LENGTH: 539
; TYPE: PRT
; ORGANISM: Triticum aestivum
US-09-291-922-26
Query Match 69.0%; Score 1764.5; DB 3; Length 539;
Best Local Similarity 68.8%; Pred. No. 6.7e-173;
Matches 351; Conservative 63; Mismatches 91; Indels 5; Gaps 2;
QY 6 LAKAVEPRKGNKVYASICAILASMASVILGYDIGMGAAMYIKDLNITDVQLEILIG 65
DB 31 LPAAVEPKKGNVFAFACAILASMTSILLGYDIGMGSASLYIQDLKINDTQLEVLWG 90
QY 66 ILSLSLFGSPAGARTSDRIGRLTVVFAAVTFVGSLLMGFAVNYGMAGRFVAGVGV 125
DB 91 ILNVYSLGSPAGARTSDWIGRFTIVFAAVTFVAGALIMGFSVNYMLMGRFVAGIV 150
QY 126 GYGGMIAPVYTAETSPASRGFLTFPEVFINIGLLGVLSNFAFARPLHLGWRVMLAI 185
DB 151 GYALMIAPVNTGEVSPASRGVLTSPFEVFINIGLLGVLSNFAFARPLHLGWRVMLAI 210
QY 186 GAVPSGLLALLVFCMPESPRLVLKRLADARAVLEKTSATPEEAERLADIKAAAGIPK 245
DB 211 GAVPSVLLAFVLMGPESPRLVMKRLADAKVLAKTSDTPEEAERLADIKTAAGIPL 270
QY 246 GLDGVTVTPGKEGGELQVWKLLILSTPAVRRIILSAVGLHFFQOASGSDSVVQYSA 305
DB 271 GLDGVTVTPGKSGSEKRVLKDILSPTIAMRHILLAGIGHFFQOSSGIDAVVLYSP 330
QY 306 RLFSAGITDKNLIGVTCAGVTKTFFLLVATFLLDRAGREPLALLISTGGMIVSLICLG 365
DB 331 LVFKSAGITGDSRLRGTTVAVGATNTVFLLVATFLLDRIRRPRLVLTSTGGMLVSLVGLA 390
QY 366 SGLTVAGHPDTPKAWAVALCIASLTSLYIAFFSIGLGPITGVYTSIEIFPLQVRALGFVAG 425
DB 391 TGLTVISRHPDEKITWAVLCIFCIMAVAVFSGIGLGPITWYSSIEIFPLHVALGCSLG 450
QY 426 VASNRVTSNAVISMVTLSSKATIGGSPFLYSGIAAVWVFFTCPLPTRGRTLEMGKLG 485
DB 451 VAVNRLTSGVISMVTLSSKATIGGAPFLFAGIASFAWVFFVFFVLPETRGRTLEMDSSL 510
QY 486 FQMPDT---GMAEEAEDAAAEKVVLEPSS 512
DB 511 FGNATHKQGAARADDAG--BKKVEMAAT 538
RESULT 5
US-09-291-922-24
; Sequence 24, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-23
; Sequence 23, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-22
; Sequence 22, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-21
; Sequence 21, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-20
; Sequence 20, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-19
; Sequence 19, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-18
; Sequence 18, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-17
; Sequence 17, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-16
; Sequence 16, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-15
; Sequence 15, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-14
; Sequence 14, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-13
; Sequence 13, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-12
; Sequence 12, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-11
; Sequence 11, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-10
; Sequence 10, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-9
; Sequence 9, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-8
; Sequence 8, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-7
; Sequence 7, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-6
; Sequence 6, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-5
; Sequence 5, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-4
; Sequence 4, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-3
; Sequence 3, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-2
; Sequence 2, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
US-09-291-922-1
; Sequence 1, Application US/09291922
; Patent No. 6383776
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
```

TYPE: PRT  
ORGANISM: Beta vulgaris  
US-09-291-922-30

Query Match 58.0%; Score 1483.5; DB 3; Length 549;  
Best Local Similarity 61.6%; Pred. No. 6.4e-144;  
Matches 299; Conservative 63; Mismatches 112; Indels 11; Gaps 5;

QY 4 DELAKAVPRKGNVYASICAILASMASVILGYDGVMSGNAMYIKDOLNITDQLEIL 63  
DB 25 DPLKK---PPKRN--KFACATLASMTSVLLGYDGVMSGAIYKEDWHISDTQIGVL 79  
QY 64 IGLISLSYFGSFACARTSDRGRLTVVFAAVIEFVGSLLMGFAVNYGMLMAGRFVAGV 123  
DB 80 VGILNIYCLFGFAAGRTSDWIGRRTIVLAGAIFVGAALLMGFATNFAFLMVGRTVGI 139  
QY 124 GVGYGMIAPVYTABISPAASRGFLTTPEVEFINIGILLGYLSNPAFARPLHLGWRVWL 183  
DB 140 GVGVALMIAPVYTABISPAASRGFLTTPEVEFINIGILLGYLSNPAFARPLHLGWRVWL 199  
QY 184 AIGAVPSGLLALLVFCMPSPRWLVKGLADARAVLEKTSATPPEAAERLADIKAAGI 243  
DB 200 GIGAIPTSLFATGVLMSPRWLVKGLADARAVLEKTSATPPEAAERLADIKAAGI 259  
QY 244 PKGLDGVVTPKGQGGGELQVWKKLLISPTPAVRRILLSAVGLHFFQOAGSDSVVQY 303  
DB 260 PAECDEDIYKVEKTKKSGN-AWKELFNPPTPAVRRILLSAVGLHFFQOAGSDSVVQY 318  
QY 304 SARLFKSAGITDDNKLGLVTCVAGVTKTFILVATFLDGRARRPLLLISTGCMIVSLIC 363  
DB 319 SPRIQSAGITNARKQLLATVAVGVKTLFILVATFLDGRARRPLLLISTGCMIVSLIC 378  
QY 364 IGSGLTVA--GHPDTKVAMAVALCIASLTSLVIAFSGISGLGITGVYTSIEIPLQVRAIG 421  
DB 379 LAMSLTVIDHSH---KITWALCITVCAVVASFSISGLGITVYTSIEIPLQVRAIG 435  
QY 422 FAVGVASNRVTSVAVISMTLSLSKAITIGGSFFLYSGIAAVAVVFFTCCLPRTGRITLEE 481  
DB 436 TSMGVAVNRVSGVISIFPLSHKITTGGAPFLFGGAIAMFFFLTPETRGRTLEN 495  
QY 482 MGKLF 486  
DB 496 MEHLF 500

RESULT 7  
US-10-162-012-46  
Sequence 46, Application US/10162012  
Patent No. 6682597  
GENERAL INFORMATION:  
APPLICANT: Curtis, Rory A.J.  
APPLICANT: Silos-Santiago, Immaculada  
APPLICANT: Gu, Wei  
TITLE OF INVENTION: NOVEL HUMAN ION CHANNEL AND TRANSPORTER FAMILY MEMBERS  
CURRENT APPLICATION NUMBER: US/10/162,012  
CURRENT FILING DATE: 2002-06-04  
PRIOR APPLICATION NUMBER: US 60/209,845  
PRIOR FILING DATE: 2000-06-06  
PRIOR APPLICATION NUMBER: US 09/875,321  
PRIOR FILING DATE: 2001-06-06  
PRIOR APPLICATION NUMBER: PCT/US01/18340  
PRIOR FILING DATE: 2001-06-06  
PRIOR APPLICATION NUMBER: US 60/209,257  
PRIOR FILING DATE: 2000-06-05  
PRIOR APPLICATION NUMBER: US 09/875,423  
PRIOR FILING DATE: 2001-06-05  
PRIOR APPLICATION NUMBER: PCT/US01/18398  
PRIOR FILING DATE: 2001-06-05  
PRIOR APPLICATION NUMBER: US 60/209,238  
PRIOR FILING DATE: 2000-06-05  
PRIOR APPLICATION NUMBER: US 09/875,363  
PRIOR FILING DATE: 2001-06-05

PRIOR APPLICATION NUMBER: PCT/US01/18247  
PRIOR FILING DATE: 2001-06-05  
PRIOR APPLICATION NUMBER: US 60/227,068  
PRIOR FILING DATE: 2000-08-22  
PRIOR APPLICATION NUMBER: US 09/928,530  
PRIOR FILING DATE: 2001-08-13  
PRIOR APPLICATION NUMBER: PCT/US01/25475  
PRIOR FILING DATE: 2001-08-15  
PRIOR APPLICATION NUMBER: US 60/226,770  
PRIOR FILING DATE: 2000-08-21  
PRIOR APPLICATION NUMBER: US 09/934,421  
PRIOR FILING DATE: 2001-08-21  
PRIOR APPLICATION NUMBER: PCT/US01/26096  
PRIOR FILING DATE: 2001-08-21  
PRIOR APPLICATION NUMBER: US 60/279,281  
PRIOR FILING DATE: 2001-03-28  
PRIOR APPLICATION NUMBER: US 10/109,029  
PRIOR FILING DATE: 2002-03-28  
PRIOR APPLICATION NUMBER: PCT/US02/09728  
PRIOR FILING DATE: 2002-03-28  
PRIOR APPLICATION NUMBER: US 60/290,288  
PRIOR FILING DATE: 2001-05-11  
PRIOR APPLICATION NUMBER: US (not assigned)  
PRIOR FILING DATE: 2002-05-13  
NUMBER OF SEQ ID NOS: 48  
SOFTWARE: FastSeq for Windows Version 4.0  
SEQ ID NO 46  
LENGTH: 488  
TYPE: PRT  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: consensus sequence  
US-10-162-012-46

Query Match 26.0%; Score 664.5; DB 4; Length 488;  
Best Local Similarity 34.9%; Pred. No. 1.4e-59;  
Matches 177; Conservative 91; Mismatches 174; Indels 65; Gaps 15;

QY 25 ATLASM-ASVILGYDGVMSG-----AAMYIKKDLNITDVQLEIIGILS 68  
DB 2 ALVAAAGGFFLFGYDGTGVIGGFLALIDFLPGLTSSCALAEVGYSTVLTGLVVSIF 61  
QY 69 LYSLFGSAGARTSDRIGRLTVVFAAVIFFVGSLLMGFAVNYG-----MLMAGRV 120  
DB 62 LGRLIGSLFAGKLGDRFGKRSLLIALVLFVIGALLSGAAPGYTTIGLWAFYLLIVGRVL 121  
QY 121 AGVGVYGGMIAPVYTABISPAASRGFLTTPEVEFINIGILLGYLSNPAFARPLH- 176  
DB 122 VGLVGGASVLPVWYISEIAPKALRGALGSLYQLAITIGILVA-----AIIGLNKTNN 176  
QY 177 -----LGRVVMIAITGAVPSGLLALLVFCMPSPRWLVKGLADARAVLEKTSATPEEA 230  
DB 177 DSALNSWNRIPGLQVLPALLLIGLFLPSPRWLVKGLAEAREVLAKRGV-EDV 235  
QY 231 AERLADIKAAGIPKGLDGVVTVPKSGGGELQVWKKLLISPT-PAVRRILLSAVGLH 289  
DB 236 DQEIQEKAE-----LEATV-----SEKAGKAS-WGELFGRTRPKVRQRLMGVWLQ 283  
QY 290 FFOQAGSDSVVQYSARLFKSAGITDDNKLGLVTCVAGVTKTFILVA-TELLDRAGRP 348  
DB 284 AFQOLTGINAIFYYSPTTFKSVGSDVASLVTIIVGVNNTFTFVALIFIVDRGRP 343  
QY 349 LLLISTGGMIVSLICLSGLTVA-----GHPDTKVAMAVALCIASLTSLVIAFSGISGL 402  
DB 344 LLLGAGMAICFLILGASIGVALLLNKPKDPSSKAAGIVA--IVFILLFIAPFALGW 401  
QY 403 PITGVYTSIEIPLQVRAIGFVAVGNSRVTSVAVISMTLSLSKAI--TTGSGFFL-YSGI 459  
DB 402 PIPWVILSELFTKVRKSKALATAANWLANFIIGLFFPYITGAIGLGGVFLVPAFL 461  
QY 460 AAVAVVFFFTCLPETGRTELEWGLF 486  
DB 462 LVILFLVFFVFPETGRTELEIEELF 489

## RESULT 8

US-09-489-039A-11902  
; Sequence 11902, Application US/09489039A  
; Patent No. 6610836  
; GENERAL INFORMATION:  
; APPLICANT: Gary Breton et. al  
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA  
; FILE REFERENCE: PNEUMONIAE FOR DIAGNOSTICS AND THERAPEUTICS  
; CURRENT APPLICATION NUMBER: 2709.2004001  
; CURRENT FILING DATE: 2000-01-27  
; PRIOR APPLICATION NUMBER: US 60/117,747  
; PRIOR FILING DATE: 1999-01-29  
; NUMBER OF SEQ ID NOS: 14342  
; SEQ ID NO 11902  
; LENGTH: 514  
; TYPE: PRT  
; ORGANISM: Klebsiella pneumoniae  
US-09-489-039A-11902

Query Match 22.7%; Score 581.5; DB 4; Length 514;  
Best Local Similarity 29.9%; Pred. No. 5.7e-51;  
Matches 147; Conservative 101; Mismatches 200; Indels 43; Gaps 9;  
  
QY 1 MASDELAKAVEPRKGNVKYAS-ICAILASMASVILGYDGVMSGAAMYIKKDLNITDVQ 59  
DB 42 MTSISNDSTLSPRTQDTRRMNWFVSIAAAVAGLLFGLDIGVISGALPITDHFITLSSQL 101  
QY 60 LEILGILSLYSLFGSFGAGARTSDRIGRLTVVFAVFFVGSLLMGFAVYGMMLMAGRF 119  
DB 102 QEWVSSMMLGAAGALFNGWLSFRLGRKYSILMAGAVLFVAGSISGSAFAASVEVILLVAR 161  
QY 120 VAGVGVGGMTPVVTAEISPAASRGFLTPPEFVINGILLYLSNFAFARLPILHLG- 178  
DB 162 VLGVAVGASVYAPILYLSMASENVGRKMISWYQLMVTGIVIAFLSDTAFS-----YGN 217  
QY 179 WRVMLAIGAVPSGLLALVFCMPSPRWLVKRLADARAVLEKTSATPEEAERLADIK 238  
DB 218 WRAMLGVLPALPAVILLVFLPNSPRWLAEGRIHEAEVRLMLRDTSEKARDELNEIR 277  
QY 239 AAAGIPKGLDGVTVVPGKQGGGLQWKKLILSPTPAVRILLISAVGLHFFQAGSD 298  
DB 278 ESLKL-----KQGG-----WALFKINR--VRAVFLGMLLQAMQOQTGMN 316  
QY 299 SVQVSARLEKSGITDNDKLLGVTCAGVVTKTFILVATFLLDRAGRPLLLISTGMI 358  
DB 317 IMYAPRIFRWAGTTEQQMIATLVGLTFMFATFIAVFTDKAGRPALKIGFSVMA 376  
QY 359 VSLICLG-----SGLTVAGHPDTPKVAWAVALCIASLTVIAPFSICLGPITGVYTS 411  
DB 377 LGTLVLGLCMQFDNGTAGSG-----LSW-----LSVGMTMCIAGYMSAAPVWILCSE 427  
QY 412 IPPLOVRALGFVAGVSNRVTSAVISMTPLSLSKAITIGGSPFLYSGIAAANVWFFTCFL 471  
DB 428 IQPLKCRDFGTCSTTTNWSNMIIATFLTLDAIGAAGTEFWLTALNVAFIGITFWLI 487  
QY 472 PETRGRTLEEM 482  
DB 488 PETKNVTLEHI 498

## RESULT 9

US-09-291-922-18  
; Sequence 18, Application US/09291922  
; Patent No. 6383776  
; GENERAL INFORMATION:  
; APPLICANT: Allen, Steve  
; APPLICANT: Hitz, Bill  
; APPLICANT: Kinney, Tony  
; APPLICANT: Tingey, Scott  
; TITLE OF INVENTION: Plant Sugar Transport Proteins

FILE REFERENCE: BB-1163  
; CURRENT APPLICATION NUMBER: US/09/291,922  
; CURRENT FILING DATE: 1999-04-14  
; EARLIER APPLICATION NUMBER: 60/083,044  
; EARLIER FILING DATE: April 24, 1998  
; NUMBER OF SEQ ID NOS: 30  
; SOFTWARE: Microsoft Office 97  
; SEQ ID NO 18  
; LENGTH: 167  
; TYPE: PRT  
; ORGANISM: Zea mays  
; FEATURE:  
; NAME/KEY: UNSURE  
; LOCATION: (34)  
; FEATURE:  
; NAME/KEY: UNSURE  
; LOCATION: (85)  
; FEATURE:  
; NAME/KEY: UNSURE  
; LOCATION: (98)  
; FEATURE:  
; NAME/KEY: UNSURE  
; LOCATION: (112)  
; FEATURE:  
; NAME/KEY: UNSURE  
; LOCATION: (151)  
US-09-291-922-18  
  
Query Match 22.5%; Score 576; DB 3; Length 167;  
Best Local Similarity 73.1%; Pred. No. 3.6e-51;  
Matches 114; Conservative 18; Mismatches 24; Indels 0; Gaps 0;  
  
QY 1 MASDELAKAVEPRKGNVKYAS-ICAILASMASVILGYDGVMSGAAMYIKKDLNITDVQ 60  
DB 10 MASAPLPAIEPRKGNVKFACACILASMTSILLGYDGVMSGASLYIKKDLKISDVKL 69  
QY 61 ELILGILSLYSLFGSFGAGARTSDRIGRLTVVFAVFFVGSLLMGFAVYGMMLMAGRF 120  
DB 70 EILMGLNVYSLIGSXAAGRTSDWIGRXTIVFAAVIFFAGAXLMGFAVYVWMLMAGRF 129  
QY 121 AGVGVGGMTPVVTAEISPAASRGFLTPPEFV 156  
DB 130 AGIGVYALMTATVTVABVSPXARGFLTPPEFV 165  
  
RESULT 10  
US-08-928-692-13  
; Sequence 13, Application US/08928692  
; Patent No. 5958727  
; GENERAL INFORMATION:  
; APPLICANT: Brody, Howard  
; APPLICANT: Yaver, Deborah S.  
; APPLICANT: Lamsa, Michael  
; APPLICANT: Hansen, Kim  
; TITLE OF INVENTION: Methods for Modifying the Production of  
; NUMBER OF SEQUENCES: 80  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: No. 5958727o No. 5958727disk of No. 5958727th America, Inc.  
; STREET: 405 Lexington Avenue  
; CITY: New York  
; STATE: NY  
; COUNTRY: USA  
; ZIP: 10174  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Diskette  
; COMPUTER: IBM Compatible  
; OPERATING SYSTEM: DOS  
; SOFTWARE: FastSEQ for Windows Version 2.0  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/928,692  
; FILING DATE: 12-SEPT-1997  
; CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:  
NAME: Lambiris, Elias J  
REGISTRATION NUMBER: 33,728  
REFERENCE/DOCKET NUMBER: 4944.200-US  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 212-867-0123  
TELEFAX: 212-878-9655  
INFORMATION FOR SEQ ID NO: 13:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 584 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: No. 5958727e  
US-08-928-692-13

Query Match 22.1%; Score 565; DB 2; Length 584;  
Best Local Similarity 29.5%; Pred. No. 3.5e-49;  
Matches 150; Conservative 109; Mismatches 183; Indels 66; Gaps 13;

QY 27 LASMASVLGYDIGVMSGAAMYIKKDLN---ITDVLQLEILIGILSLYSLFGSFAGARTSD 83  
DB VASISGFMFGYDTGYISSALISIGTDLHKVLTGEKEIVTAATSLGALITISIFAGTAAD 151  
QY 84 RIGRLTVVFAAVIFPVGSLMGFAVNYGMLMAGRFVAGVGVGGMIAPIVVTABISPA 143  
DB IFGRKRLGSLNLMFVIGAILQVSAHTFQWMAVGLMGFGVIGISLAPLFISEIAPKM 211  
QY 144 SRGFLTPPEVFINIGIL-----LGYLSNFAFARLPLHLGWRVYMLAIGAVPSGLLAL 195  
DB IGRRLTVINSLWLTGQQLVAYCGAGLNVNN-----GWRILVGLSLIPTAVQFT 261  
QY 196 LVFCMPESPRWLKGRADARAVLEKT-SATPEEAERLADIKAAAGIPKGLGDVVT- 253  
DB CLCFLPDTPRYVMKGLARATEVLKRSYTDTSSEIIERKVE-----ELVTL 308  
QY 254 ---VPGKEGGGELQVWKKL-ILSPTPAVRRLILLSAVGLHFFQOASGSDSVVQYSARL 309  
DB NOSIPEKNV---PEKWNITIKELHTVPSNLRALITCGGLQAIQOFTGWSLWVFSGTIFE 365  
QY 310 SAGITDDNKLGLGVTCAVGTKTFILVATFLDLDRAGRREPLLIISTGMIIVSLICLSGLT 369  
DB TVGFKNSS---AVSIIVSGTNEIFTLVAFPSIDKIGRRITILLIGLPGMTMALVW---CS 418  
QY 370 VAGHPDPTKVAVAVLCAIATSL-----YIAFSGIGLPGITGVYTSIEPFLQV 417  
DB IAFHFLGKFDGAVAVVSSGFSWGIVIIIVFAAFYALGIGTVPW-QOSELFPQNV 477  
QY 418 RALGFAVGASNRVTSVISMVFLSLSKAITTIGGSPFLYSGIAAVAWVFFTCCLPETRGR 477  
DB RIGITSYATATNWAGSLVIASTFLTNLQNTAGTFAFFAGLSCLSTIFCYFCYPELSGL 537  
QY 478 TLEEMGKLFMPDPTGMAEEADAEEK 505  
DB ELEEVQTL---KDGFNKASKALAKR 562

RESULT 11  
US-09-339-972-13  
Sequence 13, Application US/09339972  
Patent No. 6323002  
GENERAL INFORMATION:  
APPLICANT: Brody, Howard  
APPLICANT: Yaver, Deborah S.  
APPLICANT: Lamsa, Michael  
APPLICANT: Hansen, Kim  
TITLE OF INVENTION: Methods for Modifying the Production of  
TITLE OF INVENTION: a Polypeptide  
NUMBER OF SEQUENCES: 80  
CORRESPONDENCE ADDRESS:  
ADDRESS: No. 6323002o No. 6323002disk of No. 6323002th America, Inc.  
STREET: 405 Lexington Avenue  
CITY: New York

STATE: NY  
COUNTRY: USA  
ZIP: 10174  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette  
COMPUTER: IBM Compatible  
OPERATING SYSTEM: DOS  
SOFTWARE: FastSeq for Windows Version 2.0  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/339,972  
FILING DATE:  
CLASSIFICATION:  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 08/928,692  
FILING DATE:  
ATTORNEY/AGENT INFORMATION:  
NAME: Lambiris, Elias J  
REGISTRATION NUMBER: 33,728  
REFERENCE/DOCKET NUMBER: 4944.200-US  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 212-867-0123  
TELEFAX: 212-878-9655  
INFORMATION FOR SEQ ID NO: 13:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 584 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: No. 6323002e  
US-09-339-972-13

Query Match 22.1%; Score 565; DB 3; Length 584;  
Best Local Similarity 29.5%; Pred. No. 3.5e-49;  
Matches 150; Conservative 109; Mismatches 183; Indels 66; Gaps 13;

QY 27 LASMASVLGYDIGVMSGAAMYIKKDLN---ITDVLQLEILIGILSLYSLFGSFAGARTSD 83  
DB VASISGFMFGYDTGYISSALISIGTDLHKVLTGEKEIVTAATSLGALITISIFAGTAAD 151  
QY 84 RIGRLTVVFAAVIFPVGSLMGFAVNYGMLMAGRFVAGVGVGGMIAPIVVTABISPA 143  
DB IFGRKRLGSLNLMFVIGAILQVSAHTFQWMAVGLMGFGVIGISLAPLFISEIAPKM 211  
QY 144 SRGFLTPPEVFINIGIL-----LGYLSNFAFARLPLHLGWRVYMLAIGAVPSGLLAL 195  
DB IGRRLTVINSLWLTGQQLVAYCGAGLNVNN-----GWRILVGLSLIPTAVQFT 261  
QY 196 LVFCMPESPRWLKGRADARAVLEKT-SATPEEAERLADIKAAAGIPKGLGDVVT- 253  
DB CLCFLPDTPRYVMKGLARATEVLKRSYTDTSSEIIERKVE-----ELVTL 308  
QY 254 ---VPGKEGGGELQVWKKL-ILSPTPAVRRLILLSAVGLHFFQOASGSDSVVQYSARL 309  
DB NOSIPEKNV---PEKWNITIKELHTVPSNLRALITCGGLQAIQOFTGWSLWVFSGTIFE 365  
QY 310 SAGITDDNKLGLGVTCAVGTKTFILVATFLDLDRAGRREPLLIISTGMIIVSLICLSGLT 369  
DB TVGFKNSS---AVSIIVSGTNEIFTLVAFPSIDKIGRRITILLIGLPGMTMALVW---CS 418  
QY 370 VAGHPDPTKVAVAVLCAIATSL-----YIAFSGIGLPGITGVYTSIEPFLQV 417  
DB IAFHFLGKFDGAVAVVSSGFSWGIVIIIVFAAFYALGIGTVPW-QOSELFPQNV 477  
QY 418 RALGFAVGASNRVTSVISMVFLSLSKAITTIGGSPFLYSGIAAVAWVFFTCCLPETRGR 477  
DB RIGITSYATATNWAGSLVIASTFLTNLQNTAGTFAFFAGLSCLSTIFCYFCYPELSGL 537  
QY 478 TLEEMGKLFMPDPTGMAEEADAEEK 505  
DB ELEEVQTL---KDGFNKASKALAKR 562

RESULT 12

US-09-679-686B-18  
; Sequence 18, Application US/09679686B  
; Patent No. 6624343  
; GENERAL INFORMATION:  
; APPLICANT: Allen, Stephen M.  
; APPLICANT: Lightner, Jonathan E.  
; APPLICANT: Rafalski, J. Antoni  
; APPLICANT: Thorpe, Catherine J.  
; TITLE OF INVENTION: HEXOSE CARRIER PROTEINS  
; FILE REFERENCE: BB1160 US NA  
; CURRENT APPLICATION NUMBER: US/09679,686B  
; CURRENT FILING DATE: 2003-01-16  
; PRIOR APPLICATION NUMBER: 60/081,131  
; PRIOR FILING DATE: 1998-04-09  
; PRIOR APPLICATION NUMBER: PCT/US99/07561  
; PRIOR FILING DATE: 1999-04-07  
; NUMBER OF SEQ ID NOS: 24  
; SOFTWARE: Microsoft Office 97  
; SEQ ID NO 18  
; LENGTH: 517  
; TYPE: PRT  
; ORGANISM: Triticum aestivum  
US-09-679-686B-18

Query Match 21.6%; Score 551.5; DB 4; Length 517;  
Best Local Similarity 30.2%; Pred. No. 7.1e-48;  
Matches 146; Conservative 90; Mismatches 196; Indels 51; Gaps 10;

QY 26 ILASMASVILGVYDGVMSGAA-----MYIKKDLNITDVQ-----LELLIG 65  
DB 28 VVAATGGILFGYDIGISGVGVTSMNPLKFFPEVYDKQMKGSASQYCKYDNLQLOTFTS 87  
QY 66 ILSLSYLFSGFAGARTSDRIRRLTWFAAIVFFVGSLLMGFANVGMMLMAGRFVAGVGV 125  
DB 88 SLYLAALVSSFFAATVTRVGEKWSMFTGGLTFELIGAALNGAENIAMLIVGRILLGVGV 147  
QY 126 GYGMIAPVYTAETISPAASRGFLTTTFPEVFINIGILGYLSNFARPLHLHGWRLMAL 185  
DB 148 GFANQSPVYLSSEMAPARLGMNLIGFOLMITIGILAAALINYDTNKKIKAGYGRISLAI 207  
QY 186 GAVPSGLLALLVFCMPESPRMLVLKRLADARAVLEKTSATPEEAERLADIKAAGIPK 245  
DB 208 AAVFAGIITLGSFFLPDTPNSLIERGHPEAARMNLNRIGSDVDISEYADLVVASE--- 264  
QY 246 GLDGDVTVPKQEGGGBELQWKKLILSPTPAVRRIILSAVGLHFFQOASGSDSVVQYSA 305  
DB 265 --ESKLQHP-----WRNLI---QRKYPQLTWAIMPFFQQLTGIVNIMFYAP 308  
QY 306 RLFSAGITDDNKLGVTVCAVGVTKTFILVATFLDDRAGRRPLLLISTGGMIVSLICLG 365  
DB 309 VLFETLFGKGDASLMSAV-ITGLVNVFATLSVFTVDRIGRRKFLQGGTQMLLSQLVVG 367  
QY 366 S-----GLTVAGHHPTKWAVALCTASTLSYTAFFSIGLGPITGVVTSIFPLQVRA 419  
DB 368 TLIAVKFTGSGVGEKPGYAA-AVVLFC---LYVAGFAWSGPGLGWLVPSSEIFLEIRP 423  
QY 420 LGFVAGVNASNVTSIAVIMTFLSLSKATIGSGSPFLYSIAAVAVVFFTCLPETRGRTL 479  
DB 424 AQGSINVSVMMLFTFVIAQAFLTMLCHMKF-GLFTFFAGVWVIMTVFIALFLPETKNVPI 482  
QY 480 EEM 482  
DB 483 EEM 485

RESULT 13  
US-09-489-039A-11731  
; Sequence 11731, Application US/09489039A  
; Patent No. 6610836  
; GENERAL INFORMATION:  
; APPLICANT: Gary Breton et. al  
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA  
; TITLE OF INVENTION: PNEUMONIAE FOR DIAGNOSTICS AND THERAPEUTICS

Query Match 20.8%; Score 533; DB 4; Length 476;  
Best Local Similarity 27.9%; Pred. No. 5e-46;  
Matches 136; Conservative 99; Mismatches 206; Indels 46; Gaps 9;

QY 13 RKKG--NVKYASICAILASMASVILGYDIGNMSGAAIYIKKDLNITDVOLEILGILSLY 70  
DB 17 KKQGRSNKWTMTFFVCFALAGLLFGDLGIVTAGALPFIANEFOISAHTQEWVWSSMMFG 76  
QY 71 SLFGSFAGARTSDRGRRLTVVFAAIVPVGSLLMGFVAVNYGMLMAGRFVAGVGYGGM 130  
DB 77 AAVGAVGSGWLSFKLGRKSLMIGAILFVAGSLFSAAPNVEILLVSRVLLGLAVGVASY 136  
QY 131 IAPVVTAEISPAASRGFLTPPEVFNIIGILLGYSNFAFARLPHLG-WRVMLAIGAVP 189  
DB 137 TAPLYLSEIAPKIRGSMISWYQMLTITIGILGAYLSDTAPS-----YSGNRWMLGVIIIP 192  
QY 190 SGLLALLVCPMPSPRWLVKGLRADARAVLBKTSATPEEAERLADIAAAGIPKGLDG 249  
DB 193 AVLLIGIVIFLDPSPWPAAKRRFVDAERVLLRLRDTSAEAKRELDEIRESLKV----- 246  
QY 250 DVVTVPKQGGELQVWKLLILSPTPAVRRLLSAVGLHFFQOASGSDSVVQYSARLPK 309  
DB 247 -----KQSG-----WS--LFDKNSNFRRAVFLGILLQVNMQFTGMNVMYAPKIFE 291  
QY 310 SAGITDDNKLGVTCAGVTKTFFILVATFLDRGRRLLLISTGMIVSLICLGSGLT 369  
DB 292 LAGYANTTEQMGTIVIGUNVLATFIALGLVDRGRKPTLILGFVMAAGVGLTMMH 351  
QY 370 VAGHPDTRKVAWAVALCIASTLSYIAFFSIGLGPITGVYTSIFPLQVRALGFVGVASN 429  
DB 352 I-GHST---AQYAVLMLLMFVGFVAFMSAGPLIWLCSLQPLKGRDFGTCSTATN 406  
QY 430 RVTSAVISMTFLSKAITIGSGFFLYSGIAAVAVWVFFTCPLPSTR-----G 476  
DB 407 WIANMVGATFLTMLNSLGSANTFWYGGVNLVILLTLWLIPETKNVSLERHNLMOG 466  
QY 477 RTLEEMG 483  
DB 467 RPLREIG 473

## RESULT 15

US-09-679-686B-2  
; Sequence 2, Application US/09679686B  
; Patent No. 6624343  
; GENERAL INFORMATION:  
; APPLICANT: Allen, Stephen M.  
; APPLICANT: Lightner, Jonathan E.  
; APPLICANT: Rafalski, J. Antoni  
; APPLICANT: Thorpe, Catherine J.  
; TITLE OF INVENTION: HEXOSE CARRIER PROTEINS  
; FILE REFERENCE: BB1160 US NA  
; CURRENT APPLICATION NUMBER: US/09/679,686B  
; CURRENT FILING DATE: 2003-01-16  
; PRIOR APPLICATION NUMBER: 60/081,131  
; PRIOR FILING DATE: 1998-04-09  
; PRIOR APPLICATION NUMBER: PCT/US99/07561  
; PRIOR FILING DATE: 1999-04-07  
; NUMBER OF SEQ ID NOS: 24  
; SOFTWARE: Microsoft Office 97  
; SEQ ID NO 2  
; LENGTH: 502  
; TYPE: PRT  
; ORGANISM: Zea mays  
; FEATURE:  
; NAME/KEY: UNSURE  
; LOCATION: (488)  
; OTHER INFORMATION: Xaa = any amino acid  
; FEATURE:  
; NAME/KEY: UNSURE  
; LOCATION: (493)  
; OTHER INFORMATION: Xaa = any amino acid  
US-09-679-686B-2

Query Match 20.6%; Score 528; DB 4; Length 502;  
Best Local Similarity 28.6%; Pred. No. 1.8e-45;  
Matches 140; Conservative 90; Mismatches 207; Indels 52; Gaps 10;

QY 20 YASICAIIASMASVILGYDIGNMSGAA-----MYIKKDLNITDVO----- 59  
DB 25 YFILAIVGSGGSLFGYDLGVSSGVTSMDDFLVKVFPDVRKQAHILHETDYCKYDQV 84  
QY 60 LEILIGILSLYSLFGSFAGARTSDRGRRLTVVFAAIVPVGSLLMGFVAVNYGMLMAGRF 119  
DB 85 LTLFTSSLYFAGLVSTFGASVYTKHGRRASIMGGAASFFLGGAINGRAMNTAMLIIVGRI 144  
QY 120 VAGVGVGCGMIAPVYTTAEISPAASRGFLTPPEVFNIIGILLGYSNFAFARLPHLGW 179  
DB 145 LLGVGVGANQAVPYVLSMAPARLRGMLNIGFQMLITIGILAAELINVTGNIKAGYCW 204  
QY 180 RVMLAIGAVPGLLALLVFCMPSPRWLVKGLRADARAVLBKTSATPEEAERLADIAK 239  
DB 205 RVSLALAAVPAAIITLGSFLPDTNPNSLLERGHPEEARMLRIRGT-DDIGEEYADLVA 263  
QY 240 AAGIPKGLDGDVVTPVPGKEGGELQVWKLLILSPTPAVRRLLSAVGLHFFQOASGSDS 299  
DB 264 AS-----EERQVRHPRNII-----RRRYRAQLTWAVLPFFQQLKGINV 304  
QY 300 VVOYSARLFKSAGITDDNKLGVTCAGVTKTFFILVATFLDRGRRLLLISTGGMIV 359  
DB 305 INFYAPVLFDTLGFKEAFLMS-SVITGLNVVFAVTVSVITVDRVGRRLKFLQGGQAQIV 363  
QY 360 SLICLGS-----GLTVAGHPDTRKVAWAVALCIASTLSYIAFFSIGLGPITGVYTSIF 413  
DB 364 CQLIVGTILIAAKFGTSGTG---DIAKGYA-AVVVVFICAYVAGFAWSWGLGLVLPSEIF 419  
QY 414 PLOVRALGFVGVASNRTVSAVISMTFLSKAITIGSGFFLYSGIAAVAVWVFFTCPLPE 473  
DB 420 PLEIRPAGQSNVSNMFFTCIAQAFITMLCHFKF-GLFYFFAGVWVINTVIFIAFFLPE 478  
QY 474 TRGRTEEM 482  
DB 479 TKNVPIEEM 487

Search completed: May 10, 2005, 08:15:12  
Job time : 44 secs



GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: May 10, 2005, 08:13:47 ; Search time 135 Seconds  
(without alignments)  
1267.676 Million cell updates/sec

Title: US-10-051-902A-20  
Perfect score: 2559  
Sequence: 1 MASDELAKAVEPRKGNVKY.....ABEADAAAKEKVELPSK 513

Scoring table: BLOSUM62  
Gapop. 10.0 , Gapext 0.5

Searched: 1428581 seqs, 33359853 residues

Total number of hits satisfying chosen parameters: 1428581

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000  
Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Published Applications AA.\*  
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2: /cgn2\_6/prodata/1/pubpaa/US06\_PUBCOMB.pep.\*  
3: /cgn2\_6/prodata/1/pubpaa/US05\_PUBCOMB.pep.\*  
4: /cgn2\_6/prodata/1/pubpaa/US04\_PUBCOMB.pep.\*  
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11: /cgn2\_6/prodata/1/pubpaa/US07\_PUBCOMB.pep.\*  
12: /cgn2\_6/prodata/1/pubpaa/US06\_PUBCOMB.pep.\*  
13: /cgn2\_6/prodata/1/pubpaa/US05\_PUBCOMB.pep.\*  
14: /cgn2\_6/prodata/1/pubpaa/US04\_PUBCOMB.pep.\*  
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16: /cgn2\_6/prodata/1/pubpaa/US02\_PUBCOMB.pep.\*  
17: /cgn2\_6/prodata/1/pubpaa/US01\_PUBCOMB.pep.\*  
18: /cgn2\_6/prodata/1/pubpaa/US00\_PUBCOMB.pep.\*  
19: /cgn2\_6/prodata/1/pubpaa/US09\_PUBCOMB.pep.\*  
20: /cgn2\_6/prodata/1/pubpaa/US08\_PUBCOMB.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2559	100.0	513	13	US-10-051-902-20
2	2559	100.0	513	13	US-10-051-909-20
3	2243	87.7	510	16	US-10-767-701-46041
4	1906.5	74.5	529	13	US-10-051-902-28
5	1906.5	74.5	529	13	US-10-051-909-28
6	1872.5	73.2	510	13	US-10-051-902-22
7	1872.5	73.2	510	13	US-10-051-909-22
8	1854	72.5	502	16	US-10-437-963-190473
9	1764.5	69.0	539	13	US-10-051-902-26
10	1764.5	69.0	539	13	US-10-051-909-26
11	1626	63.5	327	15	US-10-425-114-68399
12	1612.5	63.0	356	15	US-10-425-114-61926
13	1597	62.4	380	15	US-10-425-114-39509

14	1542	60.3	523	13	US-10-051-902-24	Sequence 24, Appl
15	1542	60.3	523	13	US-10-051-909-24	Sequence 24, Appl
16	1487.5	58.1	517	15	US-10-425-114-56035	Sequence 56035, A
17	1483.5	58.0	548	10	US-09-774-381-40	Sequence 40, Appl
18	1483.5	58.0	549	13	US-10-051-902-30	Sequence 30, Appl
19	1483.5	58.0	549	13	US-10-051-909-30	Sequence 30, Appl
20	1471.5	57.5	553	16	US-10-437-963-180998	Sequence 180998, A
21	1468.5	57.4	541	15	US-10-425-114-66733	Sequence 66733, A
22	1441	56.3	580	15	US-10-425-114-67056	Sequence 67056, A
23	1420	55.5	513	17	US-10-332-815A-2	Sequence 2, Appl
24	1380	53.9	546	15	US-10-425-114-63789	Sequence 63789, A
25	1299.5	50.8	424	15	US-10-424-599-199875	Sequence 199875, A
26	1283.5	50.2	518	16	US-10-437-963-175554	Sequence 175554, A
27	1281.5	50.1	488	15	US-10-424-599-169603	Sequence 169603, A
28	1279.5	50.0	502	15	US-10-425-114-51712	Sequence 51712, A
29	1274	49.8	574	16	US-10-437-963-133626	Sequence 133626, A
30	1195.5	46.7	407	15	US-10-425-114-49353	Sequence 49353, A
31	1193	46.6	531	15	US-10-424-599-182839	Sequence 182839, A
32	1186	46.3	478	16	US-10-437-963-131904	Sequence 131904, A
33	1182	46.2	281	15	US-10-425-114-50090	Sequence 50090, A
34	1172	45.8	485	16	US-10-437-963-195179	Sequence 195179, A
35	1170	45.7	533	15	US-10-310-154-724	Sequence 724, App
36	1143.5	44.7	539	16	US-10-437-963-150795	Sequence 150795, A
37	1111	43.4	535	16	US-10-437-963-165056	Sequence 165056, A
38	1084.5	42.4	513	16	US-10-437-963-124673	Sequence 124673, A
39	1052	41.1	408	15	US-10-424-599-199163	Sequence 199163, A
40	1022	39.9	417	15	US-10-425-114-49121	Sequence 49121, A
41	1004.5	39.3	441	16	US-10-437-963-200821	Sequence 200821, A
42	891	34.8	489	16	US-10-437-963-165054	Sequence 165054, A
43	780.5	30.5	336	15	US-10-425-114-63429	Sequence 63429, A
44	755	29.5	197	16	US-10-767-701-60636	Sequence 60636, A
45	700	27.4	249	15	US-10-424-599-190445	Sequence 190445, A

ALIGNMENTS

RESULT 1  
US-10-051-902-20  
; Sequence 20, Application US/10051902  
; Publication No. US20020178468A1  
; GENERAL INFORMATION:  
; APPLICANT: Allen, Steve  
; APPLICANT: Hitz, Bill  
; APPLICANT: Kinney, Tony  
; APPLICANT: Tinney, Scott  
; TITLE OF INVENTION: Plant Sugar Transport Proteins  
; FILE REFERENCE: BB-1163  
; CURRENT APPLICATION NUMBER: US/10/051,902  
; CURRENT FILING DATE: 2002-01-17  
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US/09/291,922  
; PRIOR FILING DATE: EARLIER FILING DATE: 1999-04-14  
; NUMBER OF SEQ ID NOS: 30  
; SOFTWARE: Microsoft Office 97  
; SEQ ID NO 20  
; LENGTH: 513  
; TYPE: PRT  
; ORGANISM: Zea mays  
US-10-051-902-20

Query Match	100.0%	Score 2559;	DB 13;	Length 513;
Best Local Similarity	100.0%	Pred. No. 7.3e-220;		
Matches 513;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;
QY	1	MASDELAKAVEPRKGNVKYASICAILASMASVILGYDIGVNSGAAMYIKKDLNITDVOL	60	
DB	1	MASDELAKAVEPRKGNVKYASICAILASMASVILGYDIGVNSGAAMYIKKDLNITDVOL	60	
QY	61	ETLIGILSLYLSFGSFGAGARTSDRIGRLTVVFAAIFVGSLLMGFAVNYGMLMAGREV	120	
DB	61	ETLIGILSLYLSFGSFGAGARTSDRIGRLTVVFAAIFVGSLLMGFAVNYGMLMAGREV	120	
QY	121	AGVGVGGMIAPVYTAISPAASRGFTTTPPEVFINIGILLYLSNFAFARLPLHLGWR	180	

Db 121 AGVGVGGMIAPVYTAELSPAASRGFLTTTFPEVFINIGILLGYSNFAFARLPLHLGWR 180  
QY 181 VMLAICAVPSGLLALLVFCMPSPRWLVKGLADARAVLEKTSATPEAAERLADIKAA 240  
Db 181 VMLAICAVPSGLLALLVFCMPSPRWLVKGLADARAVLEKTSATPEAAERLADIKAA 240  
QY 241 AGIPKGLDGDVVTVPGKEGGGELQVWKKLILSPTPAVRRILLKGLADARAVLEKTSATPEAAERLADIKAA 240  
Db 241 AGIPKGLDGDVVTVPGKEGGGELQVWKKLILSPTPAVRRILLKGLADARAVLEKTSATPEAAERLADIKAA 240  
QY 301 VOYSARLFKSAGITDDNKKLLGVTCAVGTCTFFILVATFLLDRAGRRPILLISTGGMIVS 360  
Db 301 VOYSARLFKSAGITDDNKKLLGVTCAVGTCTFFILVATFLLDRAGRRPILLISTGGMIVS 360  
QY 361 LICLSGLTVAGHPDPTKVAVAVLCTIASTLSYIAFFSIGLGPITGVYTSFIPLQVRAL 420  
Db 361 LICLSGLTVAGHPDPTKVAVAVLCTIASTLSYIAFFSIGLGPITGVYTSFIPLQVRAL 420  
QY 421 GFVGVASNRVTSVAVISMTFSLSKAITIGGSFFLYSGIAAVAVVFFTCPLPETRRTLE 480  
Db 421 GFVGVASNRVTSVAVISMTFSLSKAITIGGSFFLYSGIAAVAVVFFTCPLPETRRTLE 480  
QY 481 EMGKLCFMPDPTGMAEEAEDAAAEKVVLPSSK 513  
Db 481 EMGKLCFMPDPTGMAEEAEDAAAEKVVLPSSK 513

## RESULT 2

US-10-051-909-20  
; Sequence 20, Application US/10051909  
; Publication No. US20020199217A1  
; GENERAL INFORMATION:  
; APPLICANT: Allen, Steve  
; APPLICANT: Helentjaris, Tim  
; APPLICANT: Hitz, Bill  
; APPLICANT: Kinney, Tony  
; APPLICANT: Tingey, Scott  
; TITLE OF INVENTION: Plant Sugar Transport Proteins  
; FILE REFERENCE: BB1163 US CIP  
; CURRENT APPLICATION NUMBER: US/10/051,909  
; PRIOR FILING DATE: 2002-01-17  
; PRIOR FILING DATE: April 24, 1998  
; NUMBER OF SEQ ID NOS: 38  
; SOFTWARE: Microsoft Office 97  
; SEQ ID NO 20  
; LENGTH: 513  
; TYPE: PRT  
; ORGANISM: Zea mays  
US-10-051-909-20

Query Match 100.0%; Score 2559; DB 13; Length 513;  
Best Local Similarity 100.0%; Pred. No. 7.3e-220;  
Matches 513; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 MASDELAKAVEPRKGNVYASICALASMASVILGYDGVMSGAAMYIKKDLNITDVOL 60  
Db 1 MASDELAKAVEPRKGNVYASICALASMASVILGYDGVMSGAAMYIKKDLNITDVOL 60  
QY 61 EILIGILSYLSFGSPAGARTSDRIGRLTVVFAAVIFFVGSLLMGFAVNYGMLMAGRFV 120  
Db 61 EILIGILSYLSFGSPAGARTSDRIGRLTVVFAAVIFFVGSLLMGFAVNYGMLMAGRFV 120  
QY 121 AGVGVGGMIAPVYTAELSPAASRGFLTTTFPEVFINIGILLGYSNFAFARLPLHLGWR 180  
Db 121 AGVGVGGMIAPVYTAELSPAASRGFLTTTFPEVFINIGILLGYSNFAFARLPLHLGWR 180  
QY 181 VMLAICAVPSGLLALLVFCMPSPRWLVKGLADARAVLEKTSATPEAAERLADIKAA 240  
Db 181 VMLAICAVPSGLLALLVFCMPSPRWLVKGLADARAVLEKTSATPEAAERLADIKAA 240  
QY 241 AGIPKGLDGDVVTVPGKEGGGELQVWKKLILSPTPAVRRILLKGLADARAVLEKTSATPEAAERLADIKAA 240  
Db 241 AGIPKGLDGDVVTVPGKEGGGELQVWKKLILSPTPAVRRILLKGLADARAVLEKTSATPEAAERLADIKAA 240

Db 241 AGIPKGLDGDVVTVPGKEGGGELQVWKKLILSPTPAVRRILLKGLADARAVLEKTSATPEAAERLADIKAA 240  
QY 301 VOYSARLFKSAGITDDNKKLLGVTCAVGTCTFFILVATFLLDRAGRRPILLISTGGMIVS 360  
Db 301 VOYSARLFKSAGITDDNKKLLGVTCAVGTCTFFILVATFLLDRAGRRPILLISTGGMIVS 360  
QY 361 LICLSGLTVAGHPDPTKVAVAVLCTIASTLSYIAFFSIGLGPITGVYTSFIPLQVRAL 420  
Db 361 LICLSGLTVAGHPDPTKVAVAVLCTIASTLSYIAFFSIGLGPITGVYTSFIPLQVRAL 420  
QY 421 GFVGVASNRVTSVAVISMTFSLSKAITIGGSFFLYSGIAAVAVVFFTCPLPETRRTLE 480  
Db 421 GFVGVASNRVTSVAVISMTFSLSKAITIGGSFFLYSGIAAVAVVFFTCPLPETRRTLE 480  
QY 481 EMGKLCFMPDPTGMAEEAEDAAAEKVVLPSSK 513  
Db 481 EMGKLCFMPDPTGMAEEAEDAAAEKVVLPSSK 513

## RESULT 3

US-10-767-701-46041  
; Sequence 46041, Application US/107677701  
; Publication No. US20040172684A1  
; GENERAL INFORMATION:  
; APPLICANT: Kovalic, David K.  
; APPLICANT: Zhou, Yihua  
; APPLICANT: Cao, Yongwei  
; TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With  
; FILE REFERENCE: 38-21(53535)B  
; CURRENT APPLICATION NUMBER: US/10/767,701  
; CURRENT FILING DATE: 2004-01-29  
; NUMBER OF SEQ ID NOS: 63128  
; SEQ ID NO 46041  
; LENGTH: 510  
; TYPE: PRT  
; ORGANISM: Sorghum bicolor  
; OTHER INFORMATION: Clone ID: SORBI-28MAY03-C26689\_1.pep  
US-10-767-701-46041

Query Match 87.7%; Score 2243; DB 16; Length 510;  
Best Local Similarity 87.5%; Pred. No. 1.3e-191;  
Matches 447; Conservative 26; Mismatches 36; Indels 2; Gaps 2;

QY 1 MASDELAKAVEPRKGNVYASICALASMASVILGYDGVMSGAAMYIKKDLNITDVOL 60  
Db 1 MASDELAKAVEPRKGNVYASICALASMASVILGYDGVMSGAAMYIKKDLNITDVOL 60  
QY 61 EILIGILSYLSFGSPAGARTSDRIGRLTVVFAAVIFFVGSLLMGFAVNYGMLMAGRFV 120  
Db 61 EILIGILSYLSFGSPAGARTSDRIGRLTVVFAAVIFFVGSLLMGFAVNYGMLMAGRFV 120  
QY 121 AGVGVGGMIAPVYTAELSPAASRGFLTTTFPEVFINIGILLGYSNFAFARLPLHLGWR 180  
Db 121 AGVGVGGMIAPVYTAELSPAASRGFLTTTFPEVFINIGILLGYSNFAFARLPLHLGWR 180  
QY 181 VMLAICAVPSGLLALLVFCMPSPRWLVKGLADARAVLEKTSATPEAAERLADIKAA 240  
Db 181 VMLAICAVPSGLLALLVFCMPSPRWLVKGLADARAVLEKTSATPEAAERLADIKAA 240  
QY 241 AGIPKGLDGDVVTVPGKEGGGELQVWKKLILSPTPAVRRILLKGLADARAVLEKTSATPEAAERLADIKAA 240  
Db 241 AGIPKGLDGDVVTVPGKEGGGELQVWKKLILSPTPAVRRILLKGLADARAVLEKTSATPEAAERLADIKAA 240  
QY 301 VOYSARLFKSAGITDDNKKLLGVTCAVGTCTFFILVATFLLDRAGRRPILLISTGGMIVS 360  
Db 301 VOYSARLFKSAGITDDNKKLLGVTCAVGTCTFFILVATFLLDRAGRRPILLISTGGMIVS 360  
QY 361 LICLSGLTVAGHPDPTKVAVAVLCTIASTLSYIAFFSIGLGPITGVYTSFIPLQVRAL 420  
Db 361 LICLSGLTVAGHPDPTKVAVAVLCTIASTLSYIAFFSIGLGPITGVYTSFIPLQVRAL 420

QY	1	MASDELAK--AVEPRKKGNVYKASICAILASMASVILGYDOIYVMSGAAMYIKKDLNITDV	58
Db	19	MASAALPEFGAVHPNPNKNFKFYAFYFALCASMAITVILGYDVGVMGSLYIKKDLQITDV	78
QY	59	OLEIILGILSLYSLFGSFAGARTSDRIGRRITVVFAAVIFVGSLLMGFAVNYGMLMAGR	118
Db	79	QLEIMWGILSVVALIGSLGARTSDWGRRTVVVFAAAIFNNGSLLMGFAVNYAMLVWGR	138
QY	119	FVAGVGVGGYGMIAPVYTAEISPAASRGFLTFPPEVINIGILLGYLSNFPAPARLPHLG	178
Db	139	FTVIGVGVYAINVAPVYTPVSPASRGFLTSFTEVINIGILLGVSNVAFAPARLPHLS	198
QY	179	WRVMLAIGAVPSGLLALLVFCWPSPRWLVLKRGLDARAVLEKTSATPEAAERLADIK	238
Db	199	WRVMLGIGAVPSALLALVFCWPSPRWLVMKGRLDARAVLAKTSDTPEAEVERLDQIK	258
QY	239	AAAGTPKGLDGVVTVPOKEGGEGELQVWKLLILSPTPAVRRILLSAVLGHFFPQOASGD	298
Db	259	AAAGIPRELDGVVWMP--KTKGGQEKQVWKELISPTPAMRRILLAAALGTHFFPQQTGSD	317
QY	299	SUVQVYSARLFKSAGITDDNKLLGVTCAVGVTKTFPILVATFLDRAGRPLLLISGCM	358
Db	318	SVLYSPRVFQSGITGDNHLLGATCANGVMKTLFILVATFQDRVGRRPLLLTSTAGML	377
QY	359	VSILCLGSGLTVAGHHPTKVMAVALCIASTLSYIAFFSIGLGPITGVVTSIIPLOVR	418
Db	378	ACLIGLGTGLTVGRHPDAKVPWALGICLVISILAVSFFSIGLGPLTSVUTSVFPLVR	437
QY	419	ALGFVAVGASNRVTSAVISMTFLSLSKAITTIGGSFFLYSGIAAVAWVFFFTCLPTRGRT	478
Db	438	ALGFALGTSCNRVTSAAVSMGFLSLSKAITTIGGSFFLYAGIAAGIMVFFFTFIPETRGLP	497
QY	479	LEEMGKLFQMPDPTGMAEREADEAAAKEK	505
Db	498	LEEIGKLFQMTDT--AVEAQDTATKDK	522

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RESULT 6
US-10-051-902-22
; Sequence 22, Application US/10051902
; Publication No. US20020178468A1
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hiltz, Bill

```

APPLICANT: Kinney, Tony  
APPLICANT: Tingey, Scott  
TITLE OF INVENTION: Plant Sugar Transport Proteins  
FILE REFERENCE: BB-1163  
CURRENT APPLICATION NUMBER: US/10/051,902  
PRIOR FILING DATE: 2002-01-17  
CURRENT FILING DATE: EARLIER APPLICATION NUMBER: US/09/291,922  
PRIOR FILING DATE: EARLIER FILING DATE: 1999-04-14  
NUMBER OF SEQ ID NOS: 30  
SOFTWARE: Microsoft Office 97  
SEQ ID NO 22  
LENGTH: 510  
TYPE: PRT  
ORGANISM: Oryza sativa  
FEATURE:  
NAME/KEY: UNSURE  
LOCATION: (102)  
US-10-051-902-22

Query Match 73.2%; Score 1872.5; DB 13; Length 510;  
Best Local Similarity 72.7%; Pred. No. 1.7e-158; Mismatches 60; Indels 3; Gaps 2;  
Matches 372; Conservative 60; Mismatches 77; Indels 3; Gaps 2;  
QY 1 MASDELAKAVEPRKGNVYKASICALASMASVILGYDGVMSGAMVYKKDLNITDVL 60  
DB 1 MASAALPEAVAPKKGVRFAFACAILASMTSILLGYDGVMSGASLYKKDFNISDGKV 60  
QY 61 EILIGILSYLFGSFAGARTSDRIGRLTVVFAAVIFVVGSLMGFAVNYGMLMAGRPV 120  
DB 61 EYLMGILNLYSLIGSFAAGRTSDWIGRRYTVFAAVIFVVGSLMGFAVNYGMLMAGRPV 120  
QY 121 AGVGVGYGMIAPVYTAETSPASRGFLTPPEVFINIGILGYLSNFAFARLPHLGWR 180  
DB 121 AGIGVGYALMIAPVYTAETSPASRGFLTPPEVFINIGILGYLSNFAFARLPHLGWR 180  
QY 181 VMLAIGAVPSGLLALLVFCMPSPRWLVKGLADARAVLEKTSATPEEAERLADIKAA 240  
DB 181 IMLGIGAAPSLLALMVLGMPSPRWLVKGLADAKVLEKTSATPEEAERLADIKAA 240  
QY 241 AGIPKGLDGVTVVPGKEGGELQVWKLLILSPTPAVRRIILLSAVGLHFFQOASGSDV 300  
DB 241 AGIPELGDGVTVVPGKEGGELQVWKLLILSPTPAVRRIILLSAVGLHFFQOASGSDV 300  
QY 301 VOYSARLPKSGITDDNKLIGVTCVAVGTFFILVATFLDRAGRPLLIISTGGMIVS 360  
DB 301 VOYSARLPKSGITDDNKLIGVTCVAVGTFFILVATFLDRAGRPLLIISTGGMIVS 360  
QY 361 LIGLGLAGLVVQGHDPDAKIPWAGLSIASTLAYVAFFSIGLGPITWYSSSEIFPLQVRAL 419  
DB 361 LIGLGLAGLVVQGHDPDAKIPWAGLSIASTLAYVAFFSIGLGPITWYSSSEIFPLQVRAL 419  
QY 421 GFVAVGNRVTSVAVISMTFLSLKAITGGSFYLSGIAAVAVWVFFTCLEPGRITL 480  
DB 421 GFVAVGNRVTSVAVISMTFLSLKAITGGSFYLSGIAAVAVWVFFTCLEPGRITL 480  
QY 481 EMKLGFGMPDTCMAEAEADAARKEKVELPSS 512  
DB 481 EMKLGFGMPDTCMAEAEADAARKEKVELPSS 512

## RESULT 7

US-10-051-909-22  
Sequence 22, Application US/10051909  
Publication No. US20020199217A1  
GENERAL INFORMATION:  
APPLICANT: Allen, Steve  
APPLICANT: Helentjaris, Tim  
APPLICANT: Hitz, Bill  
APPLICANT: Kinney, Tony  
APPLICANT: Tingey, Scott  
TITLE OF INVENTION: Plant Sugar Transport Proteins  
FILE REFERENCE: BB1163 US CIP  
CURRENT APPLICATION NUMBER: US/10/051,909

CURRENT FILING DATE: 2002-01-17  
PRIOR APPLICATION NUMBER: 60/083,044  
PRIOR FILING DATE: April 24, 1998  
NUMBER OF SEQ ID NOS: 38  
SOFTWARE: Microsoft Office 97  
SEQ ID NO 22  
LENGTH: 510  
TYPE: PRT  
ORGANISM: Oryza sativa  
FEATURE:  
NAME/KEY: UNSURE  
LOCATION: (102)  
US-10-051-909-22

Query Match 73.2%; Score 1872.5; DB 13; Length 510;  
Best Local Similarity 72.7%; Pred. No. 1.7e-158; Mismatches 60; Indels 3; Gaps 2;  
Matches 372; Conservative 60; Mismatches 77; Indels 3; Gaps 2;  
QY 1 MASDELAKAVEPRKGNVYKASICALASMASVILGYDGVMSGAMVYKKDLNITDVL 60  
DB 1 MASAALPEAVAPKKGVRFAFACAILASMTSILLGYDGVMSGASLYKKDFNISDGKV 60  
QY 61 EILIGILSYLFGSFAGARTSDRIGRLTVVFAAVIFVVGSLMGFAVNYGMLMAGRPV 120  
DB 61 EYLMGILNLYSLIGSFAAGRTSDWIGRRYTVFAAVIFVVGSLMGFAVNYGMLMAGRPV 120  
QY 121 AGVGVGYGMIAPVYTAETSPASRGFLTPPEVFINIGILGYLSNFAFARLPHLGWR 180  
DB 121 AGIGVGYALMIAPVYTAETSPASRGFLTPPEVFINIGILGYLSNFAFARLPHLGWR 180  
QY 181 VMLAIGAVPSGLLALLVFCMPSPRWLVKGLADARAVLEKTSATPEEAERLADIKAA 240  
DB 181 IMLGIGAAPSLLALMVLGMPSPRWLVKGLADAKVLEKTSATPEEAERLADIKAA 240  
QY 241 AGIPKGLDGVTVVPGKEGGELQVWKLLILSPTPAVRRIILLSAVGLHFFQOASGSDV 300  
DB 241 AGIPELGDGVTVVPGKEGGELQVWKLLILSPTPAVRRIILLSAVGLHFFQOASGSDV 300  
QY 301 VOYSARLPKSGITDDNKLIGVTCVAVGTFFILVATFLDRAGRPLLIISTGGMIVS 360  
DB 301 VOYSARLPKSGITDDNKLIGVTCVAVGTFFILVATFLDRAGRPLLIISTGGMIVS 360  
QY 361 LIGLGLAGLVVQGHDPDAKIPWAGLSIASTLAYVAFFSIGLGPITWYSSSEIFPLQVRAL 419  
DB 361 LIGLGLAGLVVQGHDPDAKIPWAGLSIASTLAYVAFFSIGLGPITWYSSSEIFPLQVRAL 419  
QY 421 GFVAVGNRVTSVAVISMTFLSLKAITGGSFYLSGIAAVAVWVFFTCLEPGRITL 480  
DB 421 GFVAVGNRVTSVAVISMTFLSLKAITGGSFYLSGIAAVAVWVFFTCLEPGRITL 480  
QY 481 EMKLGFGMPDTCMAEAEADAARKEKVELPSS 512  
DB 481 EMKLGFGMPDTCMAEAEADAARKEKVELPSS 512

## RESULT 8

US-10-437-190473  
Sequence 190473, Application US/10437963  
Publication No. US20040123343A1  
GENERAL INFORMATION:  
APPLICANT: La Rosa, Thomas J.  
APPLICANT: Kovalic, David K.  
APPLICANT: Zhou, Yihua  
APPLICANT: Cao, Yongwei  
APPLICANT: Wu, Wei  
APPLICANT: Boukharov, Andrey A.  
APPLICANT: Barbazuk, Brad  
APPLICANT: Li, Ping  
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With  
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement  
FILE REFERENCE: 38-21(53221)B  
CURRENT APPLICATION NUMBER: US/10/437,963  
CURRENT FILING DATE: 2003-05-14

```
; NUMBER OF SEQ ID NOS: 204966
; SEQ ID NO 190473
; LENGTH: 502
; TYPE: PRP
; ORGANISM: Oryza sativa
; FEATURE:
; OTHER INFORMATION: Clone ID: PAT_MRT4530_86885C.1.pap
US-10-437-963-190473

Query Match      72.5%; Score 1854; DB 16; Length 502;
Best Local Similarity 74.3%; Pred. No. 7.5e-157;
Matches 372; Conservative 61; Mismatches 62; Indels 6; Gaps 5;

QY 9 AVEPRKKNVYKASICAILASMASVILGYDVGMSGAAMYIKKDLNITDQLEILIG 68
DB 2 AVDPKK-NASYAFTCAILASMASVILGYDVGMSGAASYIKKDLNITDQVEILGILN 60

QY 69 LYSLGSFAGARTSDRIGRLTVVFAAVIFFVGSLLMGFAVNYGMLMAGRFVAGVG 128
DB 61 IYSLGSFAGARTSDRIGRLTVVFAAVIFFVGSLLMGFAVNYGMLMAGRFVAGVG 120

QY 129 GMIAPVYTAIEISPAASRGELTTPPEVFINIGILLGYSNFAFARLPLHLGWRVLAIGAV 188
DB 121 IMAIPVYTAIEISPAASRGELTTPPEVFINIGILLGYSNFAFARLPLHLGWRVLAIGAV 180

QY 189 PSLGLALLVFCMPESPRWLKRLADARAVLEKTSATPEEAERLADIKAAAGIPKGLD 248
DB 181 PSLGLALLVFCMPESPRWLKRLADARAVLEKTSATPEEAERLADIKAAAGIPKGLD 240

QY 249 GDVTVPGKEGGELQVWKLLILSTPAVRILLSAVGLHFFQAGSDSVVVOYSA 308
DB 241 GDVTVPGKEGGELQVWKLLILSTPAVRILLSAVGLHFFQAGSDSVVVOYSA 300

QY 309 KSAGITDDNKLIGVTCVAGVTFFILVATFLLDRAGRRPLLLISTGGMIVSLICLSGL 368
DB 300 QSAGITDDNKLIGVTCVAGVTFFILVATFLLDRAGRRPLLLISTGGMIVSLICLSGL 359

QY 369 TVAGHHPTDKV-AWALVALCIASLTSLYAFSISGLGPIITGVYTSSEIPPLQVRALGFAGV 427
DB 360 TVVGGSPDAQVPSWAGVGLCVASILAFAVFFSGLGPMGVSYYTSEIPPLQVRALGFAGV 419

QY 428 SNRVTSVAVISMTFLSLSKAITIGGSFELYSGIAAFAVAVVFFTCCLPRTGRTRLEEMGKL 487
DB 420 CNRVTSVAVISMTFLSLSKAITIGGSFELYSGIAAFAVAVVFFTCCLPRTGRTRLEEMGKL 479

QY 488 MPDTCMAEEAEDAAA-KEKVV 507
DB 480 MDDTAM--EAEDSAAYREKLL 498

RESULT 9
US-10-051-902-26
; Sequence 26, Application US/10051902
; Publication No. US20020178468A1
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
; FILE REFERENCE: BB-1163
; CURRENT APPLICATION NUMBER: US/10/051,902
; PRIOR FILING DATE: 2002-01-17
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US/09/291,922
; PRIOR FILING DATE: EARLIER FILING DATE: 1999-04-14
; NUMBER OF SEQ ID NOS: 30
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 26
; LENGTH: 539
; TYPE: PRP
; ORGANISM: Triticum aestivum
US-10-051-902-26

Query Match      69.0%; Score 1764.5; DB 13; Length 539;
Best Local Similarity 68.8%; Pred. No. 8.3e-149;
Matches 351; Conservative 63; Mismatches 91; Indels 5; Gaps 2;

QY 6 LAKAVEPRKKNVYKASICAILASMASVILGYDVGMSGAAMYIKKDLNITDQLEILIG 65
DB 31 LPAAVEPRKKNVYKASICAILASMASVILGYDVGMSGAASYIKKDLNITDQLEILIG 90

QY 66 ILSLGSFAGARTSDRIGRLTVVFAAVIFFVGSLLMGFAVNYGMLMAGRFVAGVG 125
DB 91 ILNVSLIGSFAAGRTSDWIGRRFTVFAAVIFFFAGALIMGFVSVMYMLMGRFVAGVG 150

QY 126 GYGMIAPIVYTAIEISPAASRGELTTPPEVFINIGILLGYSNFAFARLPLHLGWRVLAIG 185
DB 151 GYALMIAPIVNTGEVSPASARGVLTSPPEVFINIGILLGYSNFAFARLPLHLGWRVLAIG 210

QY 186 GAVPSGLLALLVFCMPESPRWLKRLADARAVLEKTSATPEEAERLADIKAAAGIPK 245
DB 211 GAVPSVLLAFVLMGMPESPRWLKRLADARAVLEKTSATPEEAERLADIKAAAGIPK 270

QY 246 GLDGDVTVPGKEGGELQVWKLLILSTPAVRILLSAVGLHFFQAGSDSVVVOYSA 305
DB 271 GLDGDVTVPGKEGGELQVWKLLILSTPAVRILLSAVGLHFFQAGSDSVVVOYSA 330

QY 306 RLKFSAGITDDNKLIGVTCVAGVTFFILVATFLLDRAGRRPLLLISTGGMIVSLICLSGL 365
DB 331 LVFKSAGITDDNKLIGVTCVAGVTFFILVATFLLDRAGRRPLLLISTGGMIVSLICLSGL 390

QY 366 SGLTVAGHHPTDKV-AWALVALCIASLTSLYAFSISGLGPIITGVYTSSEIPPLQVRALGFAGV 425
DB 391 SGLTVAGHHPTDKV-AWALVALCIASLTSLYAFSISGLGPIITGVYTSSEIPPLQVRALGFAGV 450

QY 426 VASNRVTSVAVISMTFLSLSKAITIGGSFELYSGIAAFAVAVVFFTCCLPRTGRTRLEEMGKL 485
DB 451 VASNRVTSVAVISMTFLSLSKAITIGGSFELYSGIAAFAVAVVFFTCCLPRTGRTRLEEMGKL 510

QY 486 FQMDPT--GMAEEAEDAAA-KEKVVLPSS 512
DB 511 FQNTATHTKQGAEEAEDDAG--EKKVEMAAT 538

RESULT 10
US-10-051-909-26
; Sequence 26, Application US/10051909
; Publication No. US20020199217A1
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Heltentjaris, Tim
; APPLICANT: Hitz, Bill
; APPLICANT: Kinney, Tony
; APPLICANT: Tingey, Scott
; TITLE OF INVENTION: Plant Sugar Transport Proteins
; FILE REFERENCE: BB1163 US CIP
; CURRENT APPLICATION NUMBER: US/10/051,909
; CURRENT FILING DATE: 2002-01-17
; PRIOR APPLICATION NUMBER: 60/083,044
; PRIOR FILING DATE: April 24, 1998
; NUMBER OF SEQ ID NOS: 38
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 26
; LENGTH: 539
; TYPE: PRP
; ORGANISM: Triticum aestivum
US-10-051-909-26

Query Match      69.0%; Score 1764.5; DB 13; Length 539;
Best Local Similarity 68.8%; Pred. No. 8.3e-149;
Matches 351; Conservative 63; Mismatches 91; Indels 5; Gaps 2;

QY 6 LAKAVEPRKKNVYKASICAILASMASVILGYDVGMSGAAMYIKKDLNITDQLEILIG 65
DB 31 LPAAVEPRKKNVYKASICAILASMASVILGYDVGMSGAASYIKKDLNITDQLEILIG 90
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Qy	66	I L S Y L F G S P A G A T S D R I G R L T V P A A V I P F V G S I L M G F A V N Y G M L M A G R F V A C V G 125
Db	91	I L N V S L I G S F A A G R T S W I G R R F T I V E A A V I F P A G I L M G F S V N Y A M L M F G R F V A G I V 150
Qy	126	G Y G C M I A P Y V T A B I E I P A S A S R G L T F P F V F I N I G I L L Y G L S N F A F A R L P U H L G W R V M L A I 185
Db	151	G Y A L M I A P N T C E V S P A S A R G V L I S F P E V F I N F G I L L G Y V S N F A P A E L S L R L G W R I M L G I 210
Qy	186	G A V P S G L L A L L V F C M P E S P R M L V L K G R I L A D A R A V L E K T S A T P B E A A E R L A D I K A A A G I P K 245
Db	211	G A V P S V L L A F M L G M P E S P R M L V M K G R I A D A K V L A K T S D T P B E A A B I A D I K T A A G I P L 270
Qy	246	G L D G D V V T V P G K E Q G G L O Y W K K I L S P T P A V R I L L S A V G L H F F Q A S G D S S V V Q Y S A 305
Db	271	G L D G D V V P V P K N G S E S K R V L K D I L S P T T A M R H I L I A G I H F F Q Q S G I D A R V L V I S P 330
Qy	306	R L F K S A G I T D D N K L L G V T C A V G V T K T F I L V A T E L L D R A G R R P L L I T S T G M I V S L I C I G 365
Db	331	L V F K S A G I T G D S R L R G T T V A V G A T N V F I L V A T F L L D R I R R R P L V T S T G T G M L V S L V G L A 390
Qy	366	S G L T V A G H H P D T K V A W A V A L C I A S T L S V I A F S I G I G P I T G V Y T S E I F P L O V P A L G F A V G 425
Db	391	T G L T V I S R H P D S K I T W A I V L C I F C I M A Y V A F S I G L P I T W V Y S S E I F P L H V R A L G C S I G 450
Qy	426	V A S N R V T S A V I S W T I L S L S K A T T I G G S F P L Y S G A A V A W V F F T F C I P E T R G R T L E M G K L 485
Db	451	V A V N R L T S G V I S W T I S L S K A N T I G A F L P A G I A S F A W V F F A Y P E I T G R T L E D M S S L 510
Qy	486	F G M P D T - - - G M A E A E A D A A A K E K V E L P S S 512
Db	511	F G N T A T H K Q A A E A D D D A G - - E K K Y E M A A T 538

RESULT 11

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US-10-425-114-68399
; Sequence 68399, Application US/10425114
; Publication No. US20040034888A1
; GENERAL INFORMATION:
; APPLICANT: Liu, Jingdong
; APPLICANT: Zhou, Yihua
; APPLICANT: Kovalic, David K.
; APPLICANT: Screen, Steven E
; APPLICANT: Tabaska, Jack E
; APPLICANT: Cao, Yongwei
; TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
; TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
; FILE REFERENCE: 38-21(53313)B
; CURRENT APPLICATION NUMBER: US/10/425.114
; CURRENT FILING DATE: 2003-04-28
; NUMBER OF SEQ ID NOS: 73128
; SEQ ID NO 68399
; LENGTH: 327
; TYPE: PRT
; ORGANISM: Zea mays
; FEATURE:
; OTHER INFORMATION: Clone ID: UC-ZMROB73004E08_FLI.pep
US-10-425-114-68399

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367 QY 367 GLTVAGHHPTKVAWALCIASLTLSYIAFFSIGLGPITGYVTSEIFPLQVRALGFAYGV 426
Db 181 GLTVAGHHPTKVAWALCIASLTLSYIAFFSIGLGPITGYVTSEIFPLQVRALGFAYGV 240
QY 427 ASNRVTSAVISMTPLSLSLSKAITIGSPFLYSGIAAWVFFFTCLPETRGRTLBEMGKLF 486
Db 241 ASNRVTSAVISMTPLSLSLSKAITIGSPFLYSGIAAWVFFFTCLPETRGRTLBEMGKLF 300
QY 487 GMPDTGMAEEAEADAAAKEKVVLEPSSK 513
Db 301 GMPDTGMAEEAEADAAAKEKVVLEPSSK 327

RESULT 12
US-10-425-114-61926
; Sequence 61926, Application US/10425114
; Publication No. US20040034888A1
; GENERAL INFORMATION:
; APPLICANT: Liu, Jingdong
; APPLICANT: Zhou, Yihua
; APPLICANT: Kovalic, David K.
; APPLICANT: Screen, Steven E
; APPLICANT: Tabaska, Jack E
; APPLICANT: Cao, Yongwei
; TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated with
; TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
; FILE REFERENCE: 38-21(53313)B
; CURRENT APPLICATION NUMBER: US/10/425,114
; CURRENT FILING DATE: 2003-04-28
; NUMBER OF SEQ ID NOS: 73128
; SEQ ID NO 61926
; LENGTH: 356
; TYPE: PRT
; ORGANISM: Zea mays
; FEATURE:
; OTHER INFORMATION: Clone ID: LIB3593-006-F8_FLI.pep
US-10-425-114-61926

```

RESULT 13

US-10-425-114-39509 ; Sequence 39509, Application US/10425114  
; Publication No. US20040034888A1  
; GENERAL INFORMATION:

APPLICANT: Liu, Jingdong  
APPLICANT: Zhou, Yihua  
APPLICANT: Kovalic, David K.  
APPLICANT: Screen, Steven E  
APPLICANT: Tabaska, Jack E  
APPLICANT: Cao, Yongwei  
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With  
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement  
FILE REFERENCE: 38-21(53313)B  
CURRENT APPLICATION NUMBER: US/10/425,114  
CURRENT FILING DATE: 2003-04-28  
NUMBER OF SEQ ID NOS: 73128  
SEQ ID NO 39509  
LENGTH: 380  
TYPE: PRT  
ORGANISM: Zea mays  
FEATURE:  
OTHER INFORMATION: Clone ID: 700233930\_FLI pep  
US-10-051-902a-20.rapb

Query Match 62.4%; Score 1597; DB 15; Length 380;  
Best Local Similarity 85.4%; Pred. No. 4.8e-134;  
Matches 322; Conservative 21; Mismatches 28; Indels 6; Gaps 4;

QY 139 ISPAASRGFLTPPEVFINIGILGYSNFAFARPLHLGWRVLAIGAIVPSGLLALLVF 198  
DB 1 ISPAASRGFLTPPEVFINIGILGYSNFAFARPLHLGWRVLAIGAIVPSGLLALLVF 60  
QY 199 CWPESPRVLVKGRLADARAVLEKTSATPEEAERLADIKAAGIPKGLDGDVTVPGKE 258  
DB 61 WMPESPRVLVKGRLADARAVLEKTSATPEEAERLADIKAAGIPKGLDGDVTVPGKE 119  
QY 259 QGGSLQVWKKLILSPTPAVRRIILSAVGLHFFQOASGSDSVVOYSARLFKSAGITDDNK 318  
DB 120 RSGGEQWVRELLISPTPAVRRIILSAVGLHFFQOASGSDSVVOYSARLFKSAGITDDNK 179  
QY 319 L-LGVTCAVGTTFPILVATFLDRAGRRPLLIISGGMIVSLICLSGLTVAGHHPD 376  
DB 180 LLDLGVTCVAVGAKTFLIPVATFLDRAGRRPLLIISGGMIVSLICLSGLTVAGHHPD 239  
QY 377 TKAVAVALCASTLSYTAFFSIGIGPITGVVTSIFPPLQVRAFGVAVGNRTVSATI 436  
DB 240 AKIPSAVALCASTLSYTAFFSIGIGPITGVVTSIFPPLQVRAFGVAVGNRTVSATI 299  
QY 437 SMTFLSKAITIGGSFFLYSGIAAVAVVFFFTCLPSTRGRTLEEMGKLFQM--PDTGMA 494  
DB 300 SMTFLSKAITIGGSFFLYSGIAAVAVVFFFTCLPSTRGRTLEEMGKLFQMPEPTDMA 359  
QY 495 EEAEDAAKEKVVELPS 511  
DB 360 -EAVNAAAKERAVEMPA 375

RESULT 14  
US-10-051-902-24  
; Sequence 24, Application US/10051902  
; Publication No. US20020178468A1  
; GENERAL INFORMATION:  
; APPLICANT: Allen, Steve  
; APPLICANT: Hitz, Bill  
; APPLICANT: Kinney, Tony  
; APPLICANT: Tingey, Scott  
; TITLE OF INVENTION: Plant Sugar Transport Proteins  
; FILE REFERENCE: BB-1163  
; CURRENT APPLICATION NUMBER: US/10/051,902  
; PRIOR FILING DATE: 2002-01-17  
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US/09/291,922  
; PRIOR FILING DATE: EARLIER FILING DATE: 1999-04-14  
; NUMBER OF SEQ ID NOS: 30  
; SOFTWARE: Microsoft Office 97  
; SEQ ID NO 24  
; LENGTH: 523  
; TYPE: PRT

ORGANISM: Glycine max  
US-10-051-902-24

Query Match 60.3%; Score 1542; DB 13; Length 523;  
Best Local Similarity 62.0%; Pred. No. 6.2e-129;  
Matches 308; Conservative 70; Mismatches 105; Indels 14; Gaps 3;

QY 1 MASDELAKAVE-----PRKGNVYASICAILASMASVILGYDGVMSGAAMYIK 50  
DB 1 MTEGKLVAAEAHKTLDQDPKPKGRNRYAFACAMLASMTSILLGYDGVMSGAAMYIK 60  
QY 51 KDLNITDVQLEILGILSLYSLFGSFAGARTSDRGRRLTVVPAAVIFVGSLLMGPAVN 110  
DB 61 RDLKVSDEQIEILLGIINLYSLGSLAGRTSDWIGPRYTVIFAGTFFVFGALLMGFSN 120  
QY 111 YGMLMAGRFVAGVGVGYGMIAPVYTAETISPAASRGFLTPPEVFINIGILGYSNFAF 170  
DB 121 YSFLMFGRFVAGIGYALMTAPVYTAESVSPASSRGFLTSFPEVFINGILGYSNFA 180  
QY 171 ARLPLHLGWRVLAIGAIVPSGLLALLVFCMPSPRWLVKGLADARAVLEKTSATPEEA 230  
DB 181 SKLTLKVGWRMLGVAIPSVLLTVGLAMPSPRWLVMRGLGEARKVLNKTSDSKBEA 240  
QY 231 AERLADIKAAGIPKGLDGDVTVPGKGGGELQVWKKLILSPTPAVRRIILSAVGLHF 290  
DB 241 QLRLAEIKQAAGIPSCNDDVVQVKNQSGEG---VMKELFLYPTPAIRHIVIAALGIHF 297  
QY 291 FQOASGSDSVVOYSARLFKSAGITDDNKLGVTCVAVGVTKTFFILVATFLDRAGRRPL 350  
DB 298 FQOASGSDSVVOYSARLFKSAGITDDNKLGVTCVAVGVTKTFFILVATFLDRAGRRPL 357  
QY 351 LISTGGMIVSLICLSGLTVAGHHPDTPKAVAVALCASTLSYIAFFSIGLGPITGVVTS 410  
DB 358 LSSVCGWVLSLLTLAISLTVI-DHSEKLMWAVGSSIAMVLAVVATFSIGAGPITWVYS 416  
QY 411 EIPFLOVRAFGVAVGNRTVSATISMTFLSKAITIGGSFFLYSGIAAVAVVFFFTC 470  
DB 417 EIPFLOVRAFGVAVGNRTVSATISMTFLSKAITIGGSFFLYSGIAAVAVVFFFTC 476  
QY 471 LPETRGRTLEEMGKLF 487  
DB 477 LPETRGRTLEEMGKLF 493

RESULT 15  
US-10-051-909-24  
; Sequence 24, Application US/10051909  
; Publication No. US20020199217A1  
; GENERAL INFORMATION:  
; APPLICANT: Allen, Steve  
; APPLICANT: Helentjaris, Tim  
; APPLICANT: Hitz, Bill  
; APPLICANT: Kinney, Tony  
; APPLICANT: Tingey, Scott  
; TITLE OF INVENTION: Plant Sugar Transport Proteins  
; FILE REFERENCE: BB1163 US CIP  
; CURRENT APPLICATION NUMBER: US/10/051,909  
; CURRENT FILING DATE: 2002-01-17  
; PRIOR APPLICATION NUMBER: 60/083,044  
; PRIOR FILING DATE: April 24, 1998  
; NUMBER OF SEQ ID NOS: 38  
; SOFTWARE: Microsoft Office 97  
; SEQ ID NO 24  
; LENGTH: 523  
; TYPE: PRT  
; ORGANISM: Glycine max  
US-10-051-909-24

Query Match 60.3%; Score 1542; DB 13; Length 523;  
Best Local Similarity 62.0%; Pred. No. 6.2e-129;  
Matches 308; Conservative 70; Mismatches 105; Indels 14; Gaps 3;

QY 1 MASDELAKAVE-----PRKGNVYASICAILASMASVILGYDGVMSGAAMYIK 50

